

HUN4445
Nutrition and Disease – Part 1
Spring 2025
Class Number 12187
Section 1116

Instructor

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Please use my UFL email, NOT Canvas email!

Office Hours:

- 11:30-1:30pm on Fridays.
 - Zoom link posted on Canvas; Please email for appointment.
- I may also be able to accommodate occasional appointments on other days. Please email if Fridays do not work for you and we will arrange an alternate day.
- All office hours will be held on Zoom unless otherwise arranged.

Teaching Assistants

Emily Wisniewski
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Shaneice Urbina
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Course Location & Meeting Times

This is an online, synchronous course. We will meet on Zoom on Tuesdays 12:50-2:45pm (6th and 7th periods) and Thursdays 1:55-2:45pm (7th period)

Join class using the following Zoom link:

<https://ufl.zoom.us/j/93793906664?pwd=jp9U9lI3kQy6EJsmD5ko0N6dJXewlt.1>

Meeting ID: 937 9390 6664

Passcode: 425017

Recording Policies

Note that our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. Likewise, students who unmute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

Course Description

Part one of a two-semester sequence that focuses on assessing the nutritional status of individuals and on the biochemical and pathophysiological bases of diseases and conditions that require specialized nutrition support or medical nutrition therapy.

Prerequisites: HUN2201 and (CHM2211 or CHM2200)

Corequisites: (BCH3025 or BCH4024) and (APK2015C or PCB4723C)

Credits: 3

Required Materials

- Computer with reliable internet access
- Webcam and microphone
- Access to e-Learning (Canvas): <https://elearning.ufl.edu/>
- Access to Zoom: <https://ufl.zoom.us>
- Google Chrome browser with the HonorLock extension for quizzes and exams
 - Chrome can be downloaded here: <https://www.google.com/chrome>
 - The HonorLock Extension can be downloaded here: <https://static.honorlock.com/install/extension>
- Access to MS Word, MS PowerPoint, and PDF reader software

Course Objectives

Upon completion of this course, students should be able to:

1. Describe how to conduct a comprehensive nutrition assessment
2. Describe the etiology, symptoms, clinical findings and pathophysiology associated with diseases and conditions covered in this course.
3. Describe the nutritional management of the diseases and conditions covered in this course.
4. Identify key structures within and related to the gastrointestinal anatomy.
5. Integrate knowledge of digestive and absorptive physiology to evaluate the appropriateness of nutrition support interventions for various patients.
6. Integrate foundational knowledge of big data analysis, including the use of high-power computing and artificial intelligence, to describe how reference ranges for nutritionally-relevant laboratory values are determined.
7. Differentiate between enteral and parenteral nutrition; identify appropriate situations for using these feeding modalities; calculate the energy, protein and fluid content of formulas; and make appropriate recommendations with regard to initiation and monitoring of enteral and parenteral solutions.
8. Evaluate the impact of food/nutrient-drug interactions on nutritional status and drug efficacy and recommend appropriate intervention strategies.
9. Describe research designs used in nutrition research and discuss their strengths and limitations and the features that increase confidence that results are valid.

Recommended Text

- Nelms M, Sucher K. (2020). Nutrition Therapy and Pathophysiology, 4th Edition. Boston, MA: Cengage Learning. ISBN-13: 978-0357041710
- OR**
- Nelms M, Sucher K, Lacey K. (2016). Nutrition Therapy and Pathophysiology, 3rd Edition. Boston, MA: Cengage Learning. ISBN-13: 978-1305111967

Readings

While there is no required text for the course, required readings from the scholarly literature will be posted on Canvas for each unit. Readings will primarily come from the following journals:

Journal of Parenteral and Enteral Nutrition

Nutrition in Clinical Practice

Journal of the Academy of Nutrition and Dietetics

European Journal of Clinical Nutrition

Clinical Nutrition

Practical Gastroenterology

Course Format

We will use a “flipped classroom” model in this course. The general pattern will be:

- Thursday: Lecture to introduce new concepts and set the stage for the week.
- Thursday through the following Tuesday: Online content to review independently (this may consist of videos, readings, etc.)
- Tuesday: Discuss and synthesize concepts; wrap up the topic.

Student Evaluation

Final grades will be based on attendance (see university policy below), in-class activities, weekly online quizzes, three unit projects, and three unit exams.

Attendance: Attendance is required for this course. As this is an online course, “attendance” means logging onto our Zoom classroom with your camera on, and remaining attentive and engaged throughout the class period. You should not be working at a job, driving, “multitasking,” etc. If you must keep your camera off for some reason, communicate with the course TA about this ahead of time (with cc to Dr. Acosta). **We understand that life happens, and each student is allowed 3 “no questions asked” absences that will not count against your grade.** After that, beginning with the fourth absence, there will be a **2 point** deduction for each absence. If there are extenuating circumstances that result in you missing class more than 3 times during the semester, please [use the Instructor Notification process through the Dean of Students Office](#). Absences documented in this manner will be considered excused, and you will be eligible to make up any work missed as a result.

In-Class Activities: During certain class periods, we will complete active learning activities related to the course material for that week. These activities will be graded, and will count toward your point total for the course.

Quizzes: Quizzes are open-book, open-note. They are intended to provide accountability to stay on top of the course material and engage with it on a regular basis to reinforce key concepts. Quizzes will be given in Canvas. They will open on Fridays, and close on Thursdays (the following week) at 11:59pm.

Unit 1 Project - Data Analysis Project: This is an individual project. It is due on the date indicated on the syllabus. Late submissions will be penalized 10% for each day late.

Unit 2 Project – Nutrition Support Case Study (Interprofessional Care for a Patient Requiring Enteral and Parenteral Nutrition): This project includes both group and individual components. It is due on the date indicated on the syllabus. Late submissions will be penalized 10% for each day late.

Unit 3 Project – Evidence-Based Practice Project: This is an individual project. It is due on the date indicated on the syllabus. Late submissions will be penalized 10% for each day late.

Exams: Exams will be given on Canvas, using HonorLock. In the weeks that we have exams, they will open on Fridays, and must be completed by the following Monday at 11:59pm. Exams are designed to take 60-75 minutes. However, everyone will be given double time (150 minutes) for exams. Failure to take an exam will result in a score of 0.

While there may be opportunities for a few “bonus points” during the semester, extra credit projects will not be available.

Performance Indicators

Attendance	25
In-class Activities	50
10 Weekly Quizzes (15 points each, lowest score dropped)	135
Unit 1 Project: Data Analysis Project	20
Unit 2 Project: Nutrition Support Case Study	40
Unit 3 Project: Evidence-Based Practice Project	30
Exams 1, 2 & 3 @ 200 points each	600
<hr/> Total	<hr/> 900

Grades are not negotiable and will be assigned according to the following scale:

837-900	93.0-100.0%	A	603-629	67.0-69.9%	D+
810-836	90.0-92.9%	A-	567-602	63.0-66.9%	D
783-809	87.0-89.9%	B+	540-566	60.0-62.9%	D-
747-782	83.0-86.9%	B	<540	<60%	E
720-746	80.0-82.9%	B-			
693-719	77.0-79.9%	C+			
657-692	73.0-76.9%	C			
630-656	70.0-72.9%	C-			

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.ua.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals,

in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code.” On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor I have neither given nor received unauthorized aid in doing this assignment.”

The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. [See the UF Conduct Code website for more information](#). If you have any questions or concerns, please consult with the instructor or TAs in this class.

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see:

<https://policy.ufl.edu/regulation/4-040/>

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

Whole Gator App

- The Whole Gator website and app connects UF students with resources dedicated to supporting overall health and well-being. In addition to many of the resources below it also has strategies to practice self-care. <https://one.ufl.edu/whole-gator/topics>

Health and Wellness

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).

- University Police Department: [Visit UF Police Department website](#) or call 352 392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).
- GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, [visit the GatorWell website](#) or call 352-273-4450.
- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Academic Resources

- E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392 4357 or via e-mail at helpdesk@ufl.edu.
- [Career Connections Center](#): Reitz Union Suite 1300, 352-392- 1601. Career assistance and counseling services.
- [Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.
- Academic Complaints: Office of the Ombuds; [Visit the Complaint Portal webpage for more information](#).
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage](#) for more information.

Student Complaints

- Residential Course: <https://www.ombuds.ufl.edu/complaint-portal/>
- Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>

Accommodations for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the [“Get Started With the DRC”](#) webpage on the Disability Resource Center site. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in

preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Use of Artificial Intelligence (AI) Tools

If students use AI tools in preparing assignments for this course, it is the students’ responsibility to ensure the information’s accuracy and credibility, abide by the UF Honor Code, and acknowledge in writing (in a footnote on the assignment) which AI tools were used and specifically how they were used on that particular assignment. AI tools are not allowed for quizzes or exams in this course.

Class Schedule

	Date	Topic	Optional Textbook Readings (Nelms, Sucher) 3 rd = Third Edition 4 th = Fourth Edition Additional supplemental readings will be posted on Canvas	Major Assignments and Exams
Intro- duction	Tuesday Jan 14 (double period)	Syllabus and Expectations The Nutrition Care Process		
Week 1	Week 0 Quiz Due by 11:59pm on Thursday Jan 16			
	Thursday Jan 16	The Nutrition Care Process (continued)	3 rd : Chapter 2 4 th : Chapter 2	
	Watch for Tuesday...	Nutrition Screening	3 rd : Chapter 3 (pg. 37) 4 th : Chapter 3 (pg. 44)	
	Tuesday Jan 21 (double period)	Nutrition Screening Activity and Review		
Week 2	Week 1 Quiz Due by 11:59pm on Thursday Jan 23			
	Thursday Jan 23	The Malnutrition Diagnostic Framework	3 rd : Chapter 3 4 th : Chapter 3	
	Watch for Tuesday...	Anthropometrics and Body Composition Estimating Energy Needs		
	Tuesday Jan 28 (double period)	The Malnutrition Diagnostic Framework (continued) Estimating Energy Needs Review	3 rd : Chapter 3 4 th : Chapter 3	

Week 3	Week 2 Quiz due by 11:59pm on Thursday Jan 30			
	Thursday Jan 30	Protein Needs	3 rd : Chapter 3 4 th : Chapter 3	
	Watch for Tuesday...	Dietary Assessment, Fluid Needs, Interpreting Labs		
	Tuesday Feb 4 (double period)	Protein Needs (continued) Interpreting Labs Activity		
Week 4	Week 3 Quiz due by 11:59pm on Thursday Feb 6			
	Thursday Feb 6	Introduction to Unit 1 Project: Data Analysis Project (Deriving Lab Value Reference Ranges)		
	Watch for Tuesday...	Data Analysis in Nutritional Sciences		
Tuesday Feb 11 (double period)	Unit 1 Project Guided Workshop			
Week 5	Week 4 Quiz due by 11:59pm on Thursday Feb 13			
	Thursday Feb 13	Review for Unit 1 Exam		
	Complete for Monday....	Unit 1 Exam: Nutrition Assessment (Due Monday Feb 17 at 11:59pm)		UNIT 1 EXAM
	Tuesday Feb 18 (double period)	Introduction to Gastrointestinal Anatomy, Digestion and Absorption		

Week 6	No quiz this week			
	Thursday Feb 20	Gastrointestinal Anatomy, Digestion and Absorption		UNIT 1 PROJECT DUE
	Watch for Tuesday...	Gastrointestinal Microbiome Overview		
	Tuesday Feb 25 (double period)	Gastrointestinal Activity and Review Introduction to Enteral Nutrition		
Week 7	Week 6 Quiz due by 11:59pm on Thursday Feb 27			
	Thursday Feb 27	Enteral Nutrition (Part 1)	3 rd : Chapter 5 4 th : Chapter 5	
	Watch for Tuesday...	Enteral Nutrition (Part 2)		
	Tuesday Mar 4 (double period)	Enteral Nutrition (Part 3) Enteral Nutrition Activity and Review		
Week 8	Week 7 Quiz due by 11:59pm on Thursday Mar 6			
	Thursday Mar 6	Parenteral Nutrition (Part 1)	3 rd : Chapter 5 4 th : Chapter 5	
	Watch for Tuesday...	Parenteral Nutrition (Part 2)		
	Tuesday Mar 11 (double period)	Parenteral Nutrition Activity and Review		
Week 9	Week 8 Quiz due by 11:59pm on Thursday Mar 13			
	Thursday Mar 13	Introduction to Unit 2 Project: Nutrition Support Case Study		

		(Interprofessional Care for a Patient Requiring Enteral and Parenteral Nutrition)		
	Over Spring Break....	Work on Case Study		
	Tuesday Mar 18	Spring Break!		
Week 10	No quiz this week			
	Thursday Mar 20 (double period)	Spring Break!		
	Watch for Tuesday...	N/A		
	Tuesday Mar 25 (double period)	In-Class Guided Case Study Work Session		
Week 11	No quiz this week			
	Thursday Mar 27	Review for Unit 2 Exam		
	Complete for Monday	Unit 2 Exam: Nutrition Support (Due Monday Mar 31 at 11:59pm)		UNIT 2 EXAM
	Tuesday Apr 1 (double period)	Nutritional Genomics		
Week 12	No quiz this week			
	Thursday Apr 3	Nutrition and Cancer (Part 1)	3 rd : Chapter 23 4 th : Chapter 23	UNIT 2 PROJECT DUE (Nutrition Support Case Study)

	Watch for Tuesday...	Nutrition and Cancer (Parts 2)		
	Tuesday Apr 8 (double period)	Nutrition and Cancer (Part 3) Nutrition and Cancer Activity and Review		
Week 13	Week 12 Quiz due by 11:59pm on Thursday Apr 10			
	Thursday Apr 10	Introduction to Unit 3 Project: Evidence-Based Practice Project Writing an Answerable Clinical Question (PICO Question Format)		
	Watch for Tuesday...	Nutrition and Critical Care	3 rd : Chapter 22 4 th : Chapter 22	
	Tuesday Apr 15 (double period)	Searching and Critically Appraising the Literature		
Week 14	Week 13 Quiz due by 11:59pm on Thursday Apr 17			
	Thursday Apr 17	Open Office Hour for Unit 3 Project		
	Watch for Tuesday...	Nutrition and Pharmacology	3 rd : Chapters 11 and 24 4 th : Chapter 11, and Chapter 22 Section 22.11 (pgs. 693-698)	
	Tuesday Apr 22 (double period)	Nutrition and Pharmacology Activity and Review Review for Exam 3		UNIT 3 PROJECT DUE (Evidence-Based Practice Project)
FINAL EXAMS WEEK	Monday Apr 28	Unit 3 Exam (Due April 28 at 11:59pm)		UNIT 3 EXAM